

REMARKS

The rejection of dependent claims 29 to 35 and 42 as being obvious over Aldrich (USP 6,585,635) in view of Igo (USP 5,900,422) is traversed.

Independent claim 27 (on which depend claims 29 to 35) is directed to a method that infuses fluid through the catheter into the pericardial sac; constrains the heart by increasing a fluid pressure in the pericardial sac with the infused fluid, and reduces dilation of the heart by the constraint on the heart. Dependent claim 29 (on which depends claims 30 to 35) requires the tip of a catheter to extend through the pericardial sac so that a flowable material flows through the catheter and into the pericardial sac.

Independent claim 42 is directed to a method extends a catheter through the vascular system to puncture the pericardial sac of the heart; and infuses a flowable material through the catheter into the pericardial sac to form a hydraulic shell around the heart that increases the fluid pressure in the pericardial sac.

Aldrich describes pumping fluid in and out of pericardial space to assist beating of the heart. Aldrich teaches away from invention by teaching releasing pressure on the pericardial space during diastole to enable full relaxation of the heart. Aldrich states “[t]he minimum pressure during deflation may be set at a level near, above, or below the atmospheric pressure. In some cases, it may be desirable to provide a minimum pressure that is as low as possible (e.g., in a near vacuum state), for instance, to assist the ventricles of the heart to expand to their maximum extent in diastole.” [Aldrich, col. 4,

Ins. 47-52]. Because Aldrich teaches minimizing pressure to assist in the beating of a heart, Aldrich does not teach preventing expansion of the heart during diastole.

Igo discloses a catheter that delivers drugs into the pericardial sac, but does not suggest increasing the fluid pressure in the pericardial sac to constrain the heart.

The combination of Aldrich and Igo would not have rendered obvious the methods recited in claims and, particularly, would not have suggested constraining the heart by injecting a fluid in the pericardial sac, increasing the pressure in the pericardial sac or to form a hydraulic shell around the pericardial sac. The teaching of Aldrich of minimizing pressure in the pericardial sac and the lack of a suggestion in Igo of increasing the pressure in the pericardial sac evidence that the invention would not have been obvious and do not support the rejection for obviousness.

All claims are in good condition for allowance. If any small matter remains outstanding, the Examiner is requested to telephone applicants' attorney. Prompt reconsideration and allowance of this application is requested.

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: /Jeffry H. Nelson/

Jeffry H. Nelson
Reg. No. 30,481

JHN:glf
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100